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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,131	06/23/2006	Peter Larsson	4147-176	1375
23117	7590	02/09/2009	EXAMINER	
NIXON & VANDERHYE, PC			CHOU, ALBERT T	
901 NORTH GLEBE ROAD, 11TH FLOOR			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22203			2416	
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,131	<b>Applicant(s)</b> LARSSON ET AL.
	<b>Examiner</b> ALBERT T. CHOU	<b>Art Unit</b> 2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 June 2006.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 20-38 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 June 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1668)  
 Paper No(s)/Mail Date 06/23/2006, 09/21/2006
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Preliminary Amendment***

1. Applicant's Preliminary Amendment filed on June 23, 2006 has been entered. Claims 1-19 have been canceled. Claims 20-38 have been added. Claims 20-38 are pending in this application, with claims 20, 32, 33 and 38 being independent.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 20-37 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process.

For example, the method for cost determination in claims 20, 32, and 33 including steps of algorithm (in light of specification) which is broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent.

Claims 21-31, and 34-37 depend from claim 20 and 33, respectively, and thus are rejected based on the same ground of rejection as to claims 20 and 33.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 38 is rejected under 35 U.S.C. 102(e) as being anticipated by Biswas et al., *"Opportunistic Routing in Multi-Hop Wireless Networks"*, Second Workshop on Hot Topics in Networks, 'Online! 20 November 2003, pp. 1-6, XP002319888 (hereinafter "Biswas").

Regarding claim 38, Biswas teaches a node enabling cost determination independent of data packet forwarding in a multihop communications network [Title & Fig. 1], characterized by

means for determining a plurality of simultaneously potential next hop nodes for said node, such that said simultaneously potential next hop nodes jointly optimize a

**predetermined cost function [Fig. 1; Choose a candidate subset of all its neighboring nodes. e.g. Nodes “D, C, B” in Fig. 1 if originating at “A” destined for “C”, with various delivery ratios; Sec. 3 & 3.1], said plurality of simultaneously potential next hop nodes form a subset of the neighboring nodes to said at least one of multiple nodes [Fig. 1; Nodes “D, C, B” in Fig. 1, form a subset of the neighboring nodes; Sec. 2, 3 & 3.1]; and**

**means for determining an optimal cost for the node to be equal to the optimized value of the predetermined cost function [Fig. 1; e.g. shortest number of hops and/or deliver ratios; Sec. 2, 3 & 3.1], wherein said optimal cost is dependent of a respective cost for each of said plurality of simultaneously potential next hop nodes [Fig. 1; Optimal cost is dependent of neighboring nodes “D, C, B” in Fig. 1, based on, for example, delivery ratios; Sec. 2, 3 & 3.1].**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert T. Chou whose telephone number is 571-272-6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham, can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Albert T Chou/  
Examiner, Art Unit 2416  
February, 3. 2009